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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/650,796 | 08/29/2003 | Hidetaka Kodama | MAE 185 D1 C1 | 7443 |

7590 04/04/2007
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| EXAMINER |
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NGUYEN, JENNIFER T

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| ART UNIT | PAPER NUMBER |
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2629

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 04/04/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/650,796

Applicant(s)

KODAMA ET AL.

Examiner

Jennifer T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office action is responsive to a request a new Office action upon consideration of a preliminary amendment filed 1/17/07.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 35 is rejected under 35 U.S.C. 102(e) as being anticipated by Moriyama (Patent No.: US 5,790,092).

Regarding claim 35, Moriyama teaches a method of driving a liquid-crystal display (figs. 10 and 11) having a matrix of first signal lines (i.e., G1-GM) aligned in a first direction and second signal lines (i.e., S1-SN) aligned in a second direction transverse to the first direction, a plurality of switching elements (4) controlled by the first signal lines, disposed at intersections of the first signal lines with the second signal lines, and a plurality of liquid-crystal capacitors (6) disposed at said intersections and coupled through said switching elements to said second signal lines (col. 11, lines 8-53), comprising the steps of:

sequentially driving said first signal lines (G1-GM) to active and inactive levels, thereby switching said switching elements on and off at certain transition times, said first signal lines being driven to the active level only one at a time (fig. 12, col. 11, lines 55-65); and

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driving one of said second signal lines (S1-SN) with signals representing picture-element intensities while said first signal lines being driven to the active level (col. 11, line 66 to col. 12, line 5); wherein

said signals representing picture-element intensities alternate between potentials (i.e., $V1=10$) on one side of a certain center potential ($Vcom=5$) and potentials on an opposite side (i.e., $V2=0$) of said center potential at predetermined interval (i.e., 2 scan period), a plurality of said first signal lines being driven consecutively to the active level during each of said predetermined intervals (col. 11, line 55 to col. 12, line 19).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 36, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama (Patent No.: US 5,790,092) in view of Kitamura (Patent No. US 5,682,175).

Regarding claim 36, Moriyama differs from claim 36 in that he does not specifically teach step of equalizing the potentials of all of said second signal lines during said transition times.

Kitamura teaches short-circuiting all of said second signal lines during said transition times (col. 3, line 62 to col. 4, line 5). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the driving method as taught by

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Kitamura in the system of Kitamura in order to improve the speed of the driver circuit and save power consumption.

Regarding claims 38-39, the combination of Moriyama and Kitamura teaches equalizing the potentials includes short-circuiting said second signal lines to each other and to a fixed potential (col. 3, line 62 to col. 4, line 5).

6. Claims 37, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama (Patent No.: US 5,790,092) in view of Hayashi et al. (Patent No. US 5,818,413).

Regarding claim 37, Moriyama differs from claim 37 in that he does not specifically teach “the step of equalizing ... inactive levels”.

Hayashi teaches a step of equalizing a potentials (by switching circuit 5, fig. 1B of Hayashi) a pair of said first signal lines (i.e., A1 and A2) when both of the first signal lines in said pair are undergoing transitions between said active and inactive levels (col. 5, lines 26-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the driving method as taught by Hayashi in the system of Kitamura in order to reduce power consumption of the driving circuit.

Regarding claims 40-41, the combination of Moriyama and Hayashi teaches equalizing the potentials includes short-circuiting said first signal lines to each other and to a fixed potential (col. 5, lines 26-31).

7. Applicant's arguments with respect to claims 35-37 have been considered but are moot in view of the new ground(s) of rejection.

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8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer T. Nguyen whose telephone number is 571-272-7696. The examiner can normally be reached on Mon-Fri: 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer Nguyen
3/30/07



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600